

# USER MANUAL

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Software Version Maxx 2.13



ZAXCOM.COM

## Zaxcom Zax-Max

Mixer – Recorder - Transmitter

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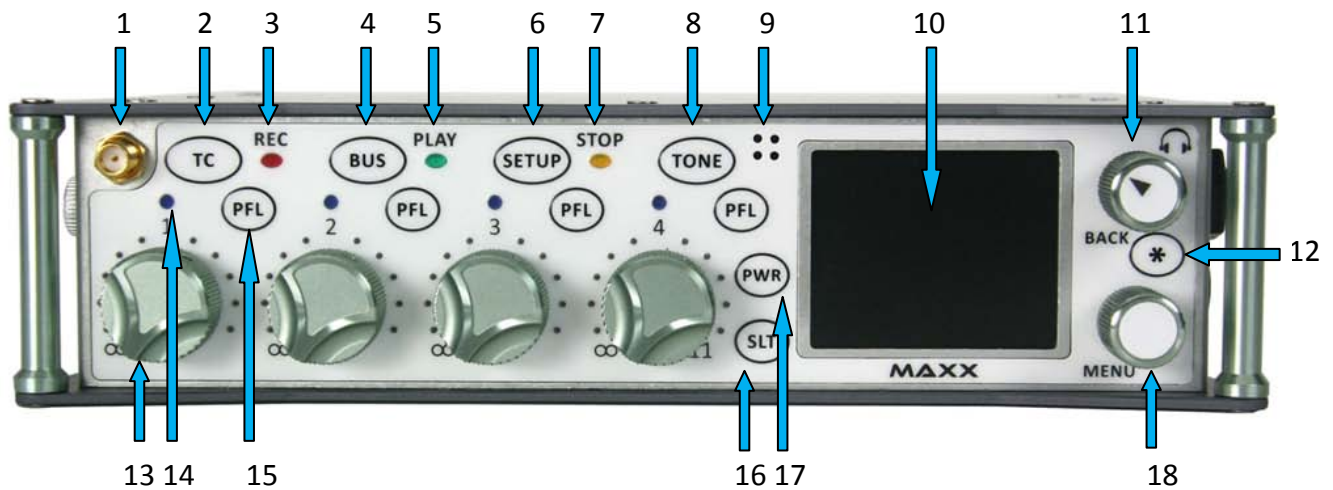
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## Know Your Maxx

### Front Panel



1. **Wireless Camera Link Antenna** - SMA connector

2. **TC / REC Key**

- In shifted mode
  - A quick press opens the time code slate - additional presses will open the time code menus.
  - Pressed and hold for one second, puts Maxx into record.
- In un-shifted mode
  - A quick press will puts Maxx into record.
- When in setup menu press it to access the analog input 1 setup menu.

3. **Red Record LED**

When illuminated indicates Maxx is in Record mode.

In the Warning Setup Menu Maxx can be set up that if you are recording just to the primary folder the LED will flash red, and when Maxx is mirroring the LED will go to solid red. This is to warn the user that Maxx is not in Continuous Mirror Mode.

4. **BUS /PLAY key**

- In shifted mode
  - A quick press access the bus menu – additional presses accesses additional bus menus.
  - When in the ENG Home Page a single short press allows you to access the quick pan matrix.
  - Pressed and held for one second, puts Maxx into playback mode.
- In un-shifted mode
  - A quick press will put Maxx into playback.
- When in setup menu press it to access the analog input 2 setup menu.

5. **Green Play LED**

When illuminated indicates Maxx is in Playback mode.

**6. SETUP / STOP Key**

- In shifted mode
  - A quick press will open up the setup menu.
  - Pressed and held for one second, will stop recording or stop playback.
- In un-shifted mode
  - A quick press will stop recording or playback.
  - A quick press with stop recording or stop playback.

**7. Yellow Stop LED**

When illuminated indicates Maxx is in Stop mode.

**8. TONE Key**

- Press to toggle Tone on and off.
- When in setup menu press it to access the analog input 4 setup menu.

**9. Internal Slate Microphone****10. Color LCD Screen**

Daylight-readable color LCD screen.

**11. HEADPHONE Knob / BACK Knob**

- Press knob to back out of a menu to the previous menu.
- Turn knob to adjust headphone volume.
- Press and hold will enter user inputted data.

**12. Star key**

- From the any home page, it advances to the next home page.
- In the bus routing matrix and Card Mix matrix if pressed it you will add phase reverse to your cross point options.
- In the fader assign matrix if pressed it will add trim to your cross point options.
- If pressed and held while powering-up, Maxx will look for new software and start the update process.

**13. Fader 1 (4 total)**

Each of four faders can be assigned to any channel or combination of channels, or act as a hardware trim knob.

**14. Auto-Trim™ LED (4 total)**

Indicates which fader is active for AutoTrim™.

**15. Pre Fader Listen key (4 total)**

- Press to listen to Pre Fader audio from the corresponding fader.
- When in setup mode press to access the AES input setup menu for the corresponding AES inputs.
- Pressing from the Meta Data menu or Track Naming menu will open the list of presets.

**16. SLT key**

- Press and hold key to activate the slate microphone.

**17. Power Key**

- A quick press will power up Maxx.
- Press and hold for 3 seconds to power down. Release the key when the countdown reaches 1.
- When Auto-Pan is ON the power key will change the panning for the active channel.

**18. MENU knob / SHIFT key**

- From the home page press it to access the Main Menu page.  
NOTE: From the AES Virtual Fader meter screen or from the ENG meter screen, when you have virtual faders engaged, you have to push and hold to access the Main Menu.
- Turn it to scroll through the items in a menu.
- Press to select a menu item.  
SHORTCUT: While scrolling through a parameter with a long list, pressing the MENU knob while turning it will speed up the scroll speed by 10 times.



## Left Side

**1. Battery Door**

The Silver knob rotates clockwise to lock the battery compartment door. Inside, you will find space for the battery carrier that holds six AA batteries.

NOTE: It is possible to insert the battery carrier incorrectly. Even if you insert with the contacts reversed it will do NO harm to the unit because there is reversed current protection. It just won't turn on.

**WARNING:** Use ONLY NiMH rechargeable or Lithium batteries. If you use ANY other batteries, they will EXPLODE and can SEVERLY damage or DESTROY the unit.

**2. AES Input Output connector / GPI (DE-15F)**

Maxx has AES 2 input pairs and 3 AES output pairs. The Input has a sample-rate conversion, allowing each input to have a different sampling-rate. Maxx will accept any unlocked AES signal with a sampling-rate of 44.1 to 96 kHz. The dynamic range of the sample-rate conversion is 124 dB, offering completely transparent conversion of digital audio from one sample-rate to another.

**3. Time code Input / Output connector (BNC) - the function of this connector is set in the time code setup menu.****4. Compact Flash Card Mirror Media Slot**

Compact Flash card is inserted with the top of the card (Label side) facing down.

**WARNING:** Take your time when inserting a card in Maxx. The card should slide in easily. If there is any resistance required the card is not aligned correctly and can bend the pins.

## Right Side



1. **Headphone (1/4" stereo jack)**
2. **External Power connector (Hirose- HR10A-7P-4P)**  
10 to 18 VDC {1/2 A @ 12 VDC}
3. **Tape / Mono Out (TA-5M)**  
Outputs both the tape and mono out busses. The tape and mono out are both balanced mono sources. The audio that is fed to these busses are controlled from the mono / tape bus matrix.
4. **Output Bus 1/2 (TA-5M)**  
This is an isolated feed of the audio sent to the XLR bus outputs. The Levels are independently adjustable.
5. **Return / Line Level Inputs for analog in 5 and 6 (TA-5M)**
  - This is where a camera returns are connected. The return is wired to accept two channels of audio so it can receive one stereo return from one camera or two mono returns from two cameras.
  - This input can be used as line level analog input 5 and 6.
6. **Output Bus 1/2 (XLR)**  
Main XLR output. Levels are independently adjustable.

Rear



1. Mic/Line-level Inputs 3 and 4 (Combo XLR-3F 1/4" Stereo )
2. Mic/Line-level Inputs 1 and 2 (XLR-3F)

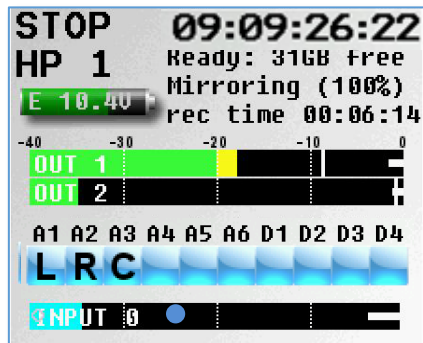
## Home Screen / Meters

There are several selectable meter screens to choose from. Pressing the STAR key will toggle through the different screens.

The color of the left half of the meter indicates the source type being metered:

- Light blue is an input
- Green is an output bus
- Purple is a recorded track

The track name, bus number or input number is indicated within each meter to aid in channel identification. If a compressor is engaged, a white gain reduction line will appear at the right side of the meter when the compression is being applied.

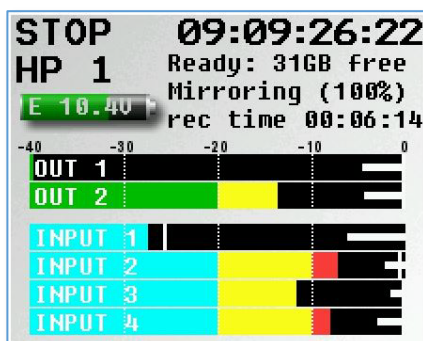


ENG Home Screen

← Output busses 1 and 2

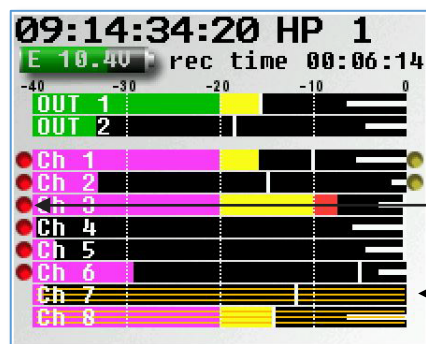
← Quick Pan Matrix

← AutoTrim Meter / Virtual Faders for mixing Inputs



4 Input Home Screen

← Input signal from XLR Inputs

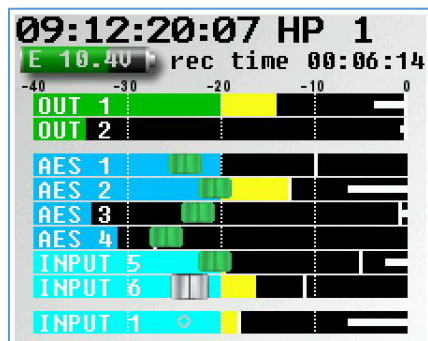


Card Track Home Screen

← Yellow ISO Attenuation Enabled

← Red Record Enabled Indicators - shows which tracks will be recorded

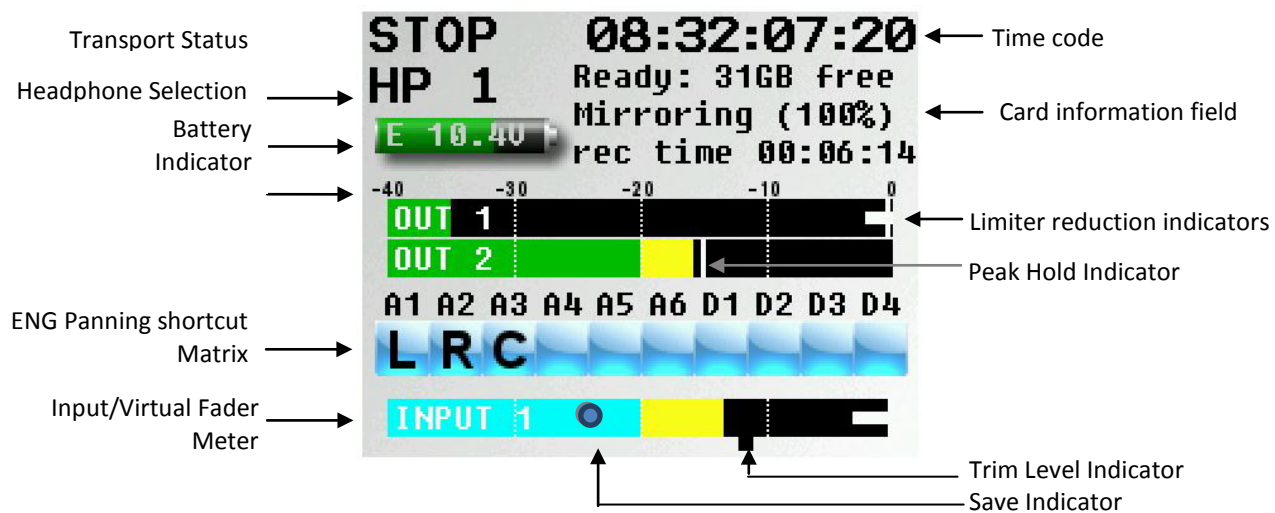
← Yellow Strike Through – Represents that these tracks will not be recorded



← AES and Line level inputs 5 and 6 with virtual fader control

Virtual Fader Home Screen

## Home Screen Explained



## Transport Status

Shows the mode of recorder **RECORD**, **PLAY** or **STOP**.

## Time Code

Shows the current time code.

## Headphone Selection

Displays which headphone matrix is being monitored. You can custom name your headphone set up - see headphone naming in the ENG menu.

- If the PFL key is pressed, the name in the Headphone Monitor field is replaced with "PFL" alternating with the selected channel number(s) as follows:



- Press the PFL key corresponding to input to select a channel to PFL. If you want to listen to multiple channels at the same time, just press and hold an additional PFL key for approximately 1 second to add that channel to the PFL circuit.
- Press the headphone knob to restore normal headphone monitoring.

## Battery Indicator

Displays the power source (I - Internal / E - External), a numeric display of the current voltage. Maxx will always automatically switch to the higher voltage source first.

## Save Indicator

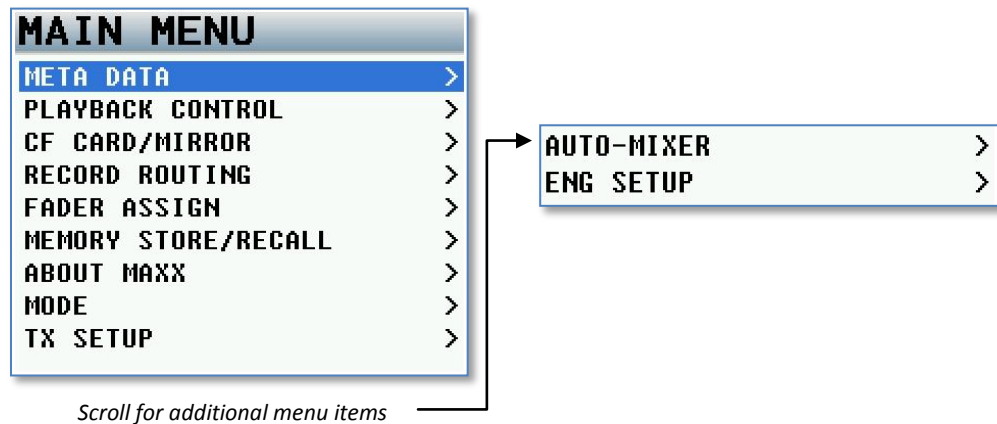
A moving pixel on bottom of screen moving right to left indicates that the Maxx is saving a parameter setting to its memory. If you power down while the pixel is moving the settings will not be saved.

## Card Information Field

Top Line - Mirror Free Space  
 Second Line - Mirror File Progress  
 Third Line - Time left on the Primary Folder

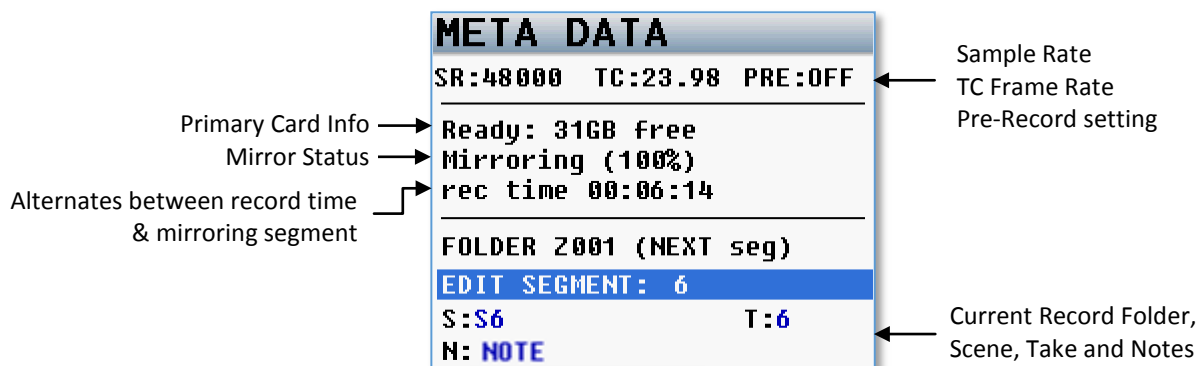
## Main Menu

To access the main menu press the MENU Knob. If you are in the ENG home screen and you have the virtual fader mode turned on, you will have to press and hold the menu knob for 1.5 seconds to enter the main menu. Selecting any item in the main menu will take you to the sub menus for each item.



## Metadata Page

This page displays and allows you to adjust the metadata.



To adjust the metadata use the MENU Knob to select and highlight one of the data fields then press the MENU Knob to highlight the field.

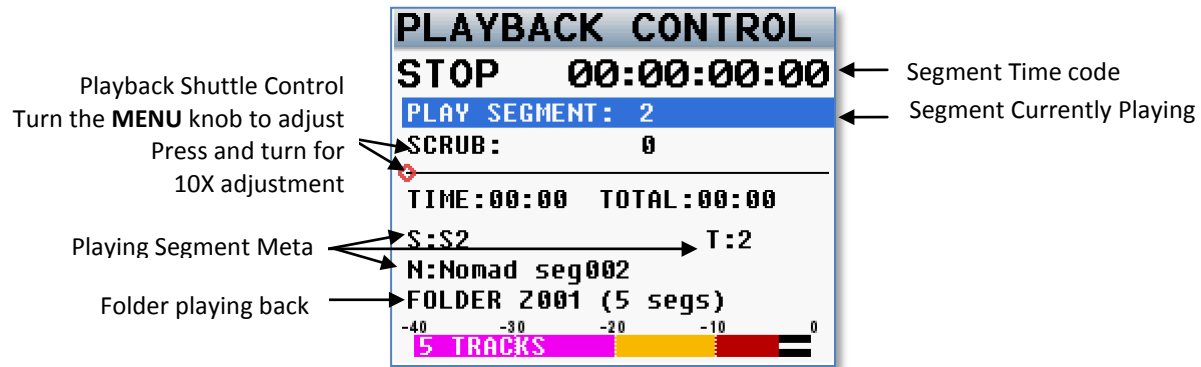
Metadata can be edited and changed before Maxx starts recording a file or even while Maxx is recording. And metadata changes made before a record take is stopped will be reflected in that take. If you are in continuous mirror mode and changes are made after stop is pressed the file will need to be re-mirrored for the changes in the metadata to be reflected in the mirror file. You can the scene name, the take number and enter a note about the take. Maxx also features a preset list of notes you can create and recall from.

### To select and enter from the preset list of notes

1. Highlight the note field
2. Press one of the PFL buttons
3. Select the preset note you want enter
4. Press the menu knob

## Playback Control Page

This page controls playback of recorded files.





## Record Card / Mirror Menu

The card/mirror menu sets the parameters of the primary recording and mirroring functions of Maxx.



### Mirror Mode Options

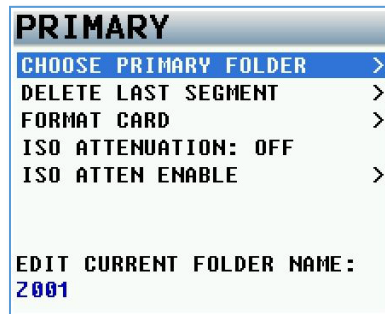
- **OFF** - Maxx will not mirror any files.
- **ON** - Maxx will only start to mirror a file once the unit has gone into stop mode.
- **CONTINUOUS** - When Maxx is recording, the audio is copied to the mirror folder immediately after it is written to the primary folder. Depending on the track count, the mirror card may lag behind a bit. Not to worry, after you go into stop mode, the mirror card will catch up.

If you are finding that continuous mirroring is lagging you may be using too much of Maxx's processing power elsewhere. Many times there are items that are on that are not needed. These items can often be shut off to conserve processing power and speed up the mirroring process. You can check to see that some of these items are not unnecessarily on: bus assignments cross points, compressor enables (input, output and card), high pass filters.

### Write Sound Report

When selected, Maxx will create a sound report of the recorded files and write it on the mirror CF partition. The sound report contains the metadata information for what was entered. Please note to write a sound report mirror mode must be set to OFF.

## Primary Record Menu



## Choose Primary Folder

PRIMARY FOLDER		
FOLDER	SIZE	SEGS
Z001	221 GB	5
Z002	17 GB	3
Z003	0 MB	0
Z004	0 MB	0
Z005	0 MB	0
Z006	0 MB	0
Z007	0 MB	0
Z008	0 MB	0

Green checkmark indicates which folder receives the recorded audio.

**NOTE:** Mirror mode needs to be set to OFF before you can change primary folders.

All files are recorded into individual folders. This menu lets you choose which folder the audio files will be recorded to. To select a folder scroll the MENU knob to highlight the folder then press the MENU knob. At that point the green check will indicate the folder that will be recorded to.

After selecting a folder that folder can be renamed to help identify its contents.

To name the folder hit the back button to return to the primary CF menu then scroll down to the Edit Current Folder Name then press MENU Knob to change the name of the folder. The folder name needs to be nineteen characters or less, and cannot contain spaces or symbols.

The primary audio is recorded as a Zaxcom MARF file (Mobile Audio Record Format). The advantage of MARF is that if there is any power loss while recording there will not be any loss of recorded audio, as is common with all other portable recording systems.

In the event of a power loss while recording: at power-up, Maxx will automatically close any open files to the point the audio recording was interrupted with no loss of audio up to that point. Even though Maxx uses a proprietary file system, it is 100% compatible with Mac or PC by using the free file conversion utility ZaxConvert. The latest version can be downloaded from [www.zaxcom.com](http://www.zaxcom.com). All MARF files can be converted to either a BWAV or MP3 files.

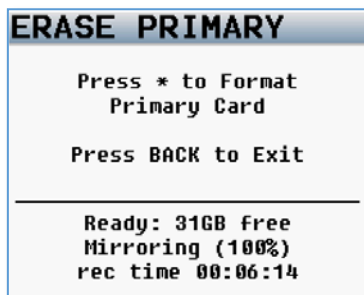
## Delete Last Primary Segment

This page allows you to delete the last recorded segment by pressing STAR key



## Format CF Card

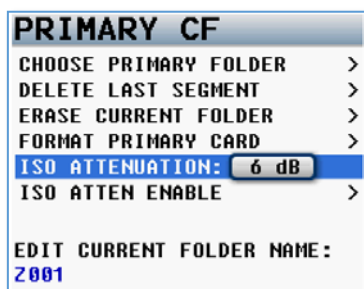
This page is where the compact flash card is formatted. This process will take about 4 minutes to complete.



## ISO Attenuation

The NeverClip™ inputs allow large signals to travel through the digital mixing engine using 32 bit floating point numbers. Once these large signals are recorded into a 24-bit WAV (or MARF) file, the advantage of floating point math is lost and these signals can clip if you don't use a card limiter.

ISO Attenuation allows ISO record tracks to be attenuated by a user selectable fixed amount of either 6, 12, 18 or 24 dB. This allows audio to be recorded un clipped, even if its dynamic range would normally be too large. This gain reduction is stored in the metadata of the WAV file so post production can restore the amplitude of the ISO tracks when necessary.



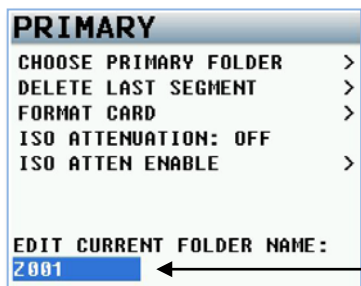
## ISO Attenuation Enable

This matrix allows you to select which card record tracks will be attenuate when the ISO attenuation has been turned on.



## Edit Current Folder Name

Each record folder can be named to identify its contents. When naming a folder you can use up to 19 characters for each folder name.



Current folder name

## Editing Folder Names

1. Scroll down to the Edit Current Folder Name.
2. Press the MENU knob to highlight the folder name and to access the enter text menu.
3. Name the folder keeping in mind that the folder name needs to be 19 characters or less, and cannot contain spaces or symbols.

## Mirror Enables

The mirror enable menu controls which of the tracks are copied on to Maxx's mirror partition.



**SHORTCUT:** It is not necessary to remove mirror enable cross points from this mirror matrix. If a primary card track is not assigned, that track will not be recorded and nothing will be written to the mirror file. This allows you to leave all of the mirror tracks enabled if you like. This makes it unnecessary to change the tracks being mirrored every time you change a primary track.

## Mirror Settings Menu

The mirror menu controls the copying of the audio files from primary partition on the compact flash card to the mirror partition. The mirror partition is formatted as FAT32, is fully compatible with all Mac & PC platforms and is generally used as a deliverable format to post since the mirrored files will be recorded as BWAV files.

MIRROR	
MIRROR MODE	OFF
FOLDER TO MIRROR	>
START SEG	1
END SEG	999
FILE TYPE	BWAV MONO
FILE RESOLUTION	24 BITS
FILE NAME STYLE	Z001001
MIRROR OPTIONS	>

### Mirror Mode

- **OFF:** Maxx will not mirror any files.
- **ON:** Maxx will only start to mirror a file once the unit has gone into stop mode.
- **CONTINUOUS:** When Maxx is recording, the audio is copied to the mirror card immediately after it is written to the primary card. Depending on the track count, the mirror card may lag behind a bit. Not to worry, after you go into stop mode, the mirror card will catch up.

### Folder to Mirror

This menu specifies which folder the primary audio will be mirrored (copied) to. If you want to continuous mirror, this folder needs to match the primary folder.

FOLDER TO MIRROR		
FOLDER	SIZE	SEGS
Z001	221 GB	5
Z002	17 GB	3
Z003	0 MB	0
Z004	0 MB	0
Z005	0 MB	0
Z006	0 MB	0
Z007	0 MB	0
Z008	0 MB	0

← Green checkmark indicates which folder will be mirrored.

### Start Segment

This will set the first segment that Maxx will mirror or re-mirror. As you are recording the start segment will automatically increment with each file on the primary card.

### End Segment

This sets the last segment that Maxx will mirror or re-mirror.

## File Type Select

File select sets the file format type Maxx will mirror the audio as the choices are:

- **BWAV MONO**
- **BWAV POLY**

A BWAV MONO file is 1 file per track. So if you record 1 track only, 1 file will represent that "take" from the time you press record to the time you press stop. If you were to record 2 tracks for that same take, Maxx will produce 2 files, one representing track 1 and the other representing track 2.

A BWAV POLY file creates one file for that take; even if the take was recorded has multiple tracks. So with a POLY file if a take is only 1 track the file would be 1 track. If the take was 2 tracks, it would still be one file with both tracks. This is often referred to as being "2 tracks wide". Similarly, if 6 tracks were recorded it would still be only one file, but will be 6 tracks wide.

## File Resolution Select

File resolution sets the bit depth that Maxx will mirror files at. You can choose 16 bit or 24 bit.



## File Naming Style

File naming sets the way your individual files are named.

- **Z001001** - Creates a file name in the format of - **Folder Name** and **Segment Number**.  
This is the default file naming protocol where the file name consists of the Folder Name followed by the Segment Number. So for example file number 45 in folder 1 the file name would be Z001045.WAV that would be followed by file Z001046.WAV. If you change the folder name (for example Maxx) the file name would be Maxx045.WAV
- **1 T2 Z001** - Creates a file name in the format of - **Scene**, **Take**, **Folder Name** and **Segment Number**.  
So for example if you record scene "1", Take "2" in folder "Z001" and the segment number is "45", the file name will be "1\_T2\_Z001045.WAV". Warning when using this naming option do not create a scene or take with any characters other than letters or numbers.
- **1 T2** - Creates a file name in the format of - **Scene** and **Take** separated by and underscore.  
For example if you record scene "1", Take "2" in folder "Z001" and the segment number is "45", the file name will be "1\_T2.WAV". Warning when using this naming option avoid creating duplicate file names within a folder, if duplicate file names are created the files will not mirror properly.
- **1T2** - Creates a file name in the format of - **Scene** and **Take** with no separation.  
For example if you record Scene is "1", Take "2" in folder "Z001" and the segment number is "45", the file name will be "1T2.WAV". Warning when using this naming option avoid creating duplicate file names within a folder, if duplicate file names are created the files will not mirror properly.

Please note that all segment numbers will be a three digit number. And the first file in all folders will always be 001.

## Mirror Options

This setting allows Maxx to stay in the last mirror mode setting before being been powered off. If this option is set to OFF, any time Maxx is powered down it changes the mirror mode to OFF then when powering back up you will need to turn mirroring back on regardless what your mirror setting was set to. Please note even if Maxx is setup to allow mirroring mode to be remembered after a power cycle - if a compact flash card is not installed after the unit boots-up - mirror mode will be turned off and must be manually turned on by the user when a compact flash card is inserted.



## Record Routing

The record routing menu controls what is routed to and recorded to each track

In the record routing page by using the MENU knob you will select and highlight which card track you want to record to then you can choose what source you want to assign and record on that channel.

You can choose between all 6 analog inputs, the 4 AES inputs or the 2 output busses.

All analog or digital inputs can be assigned as either pre or post fade.

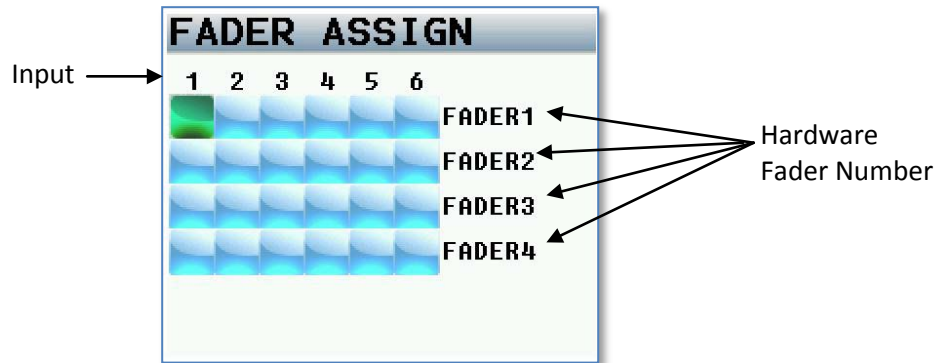
RECORD ROUTING	
CARD1	Out 1
CARD2	Out 2
CARD3	In 1 PreFader
CARD4	In 2 PostFader
CARD5	AES 1 PreFader
CARD6	AES 2 PostFader
CARD7	(OFF)
CARD8	(OFF)

Shows Card Tracks 1 and 2 will Record Output Busses 1 and 2

All Analog and Digital inputs can be routed as either Pre or Post Fader

## Fader Assign Matrix

The fader assign matrix controls which inputs are assigned to the four hardware faders.



Because Maxx is a digital mixer, no actual audio is going through the fader control which allows for complete flexibility for the hardware faders assignments. So any one of the analog inputs 1-6, digital inputs 1-4, or analog trim controls can be assigned to any of the 4 hardware faders.

## Setting a fader assign cross point

Rotate the menu knob to scroll through the matrix. Stop at the intersection of the input and fader number where you want to send that specific input. Press the menu knob to cycle through the available cross points, which are:

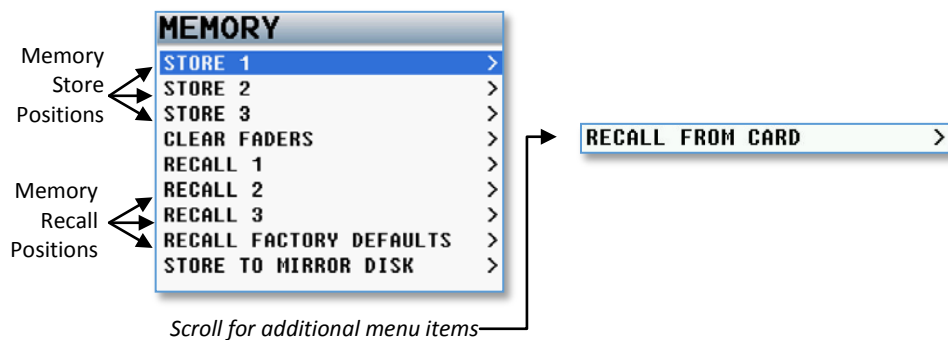
- Blank - no connection.
- **A** - Assign an analog input to a fader.
- **D** - Assign a digital input to a fader.
- **T** - Assign the fader knob to work as a hardware trim knob. Please note that to access the trim assign option you will need to press the STAR key when in this matrix. That will add the "T" to the cycle.



It is important to note that if you are using a multiple-element mic (i.e., stereo, surround, etc.) and you assign all of the channels to one master fader you need to disable auto trim in the mode menu.

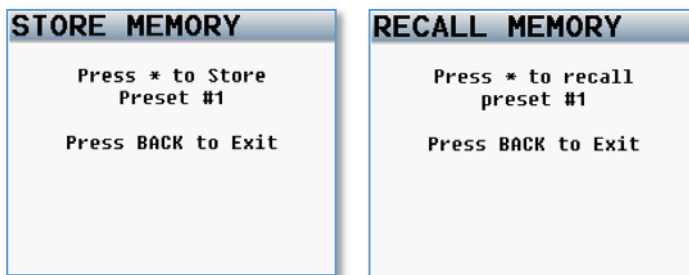


## Memory Menu



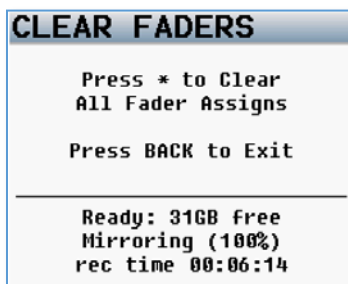
## Store / Recall Memory

From the store and recall positions, Maxx can save and recall three full recorder setups for different work scenarios. All user set parameters are saved and can be recalled as needed. Note if you do a factory restore, all of the saved memories will be erased.



## Clear Fader Assigns

This menu clears all of the current fader assign settings.



## Factory Reset to Default Settings

From this page is where you can resets all the parameters back to factory default. If a factory reset is done, all of your user setting will be lost and will have to be re-inputted. Though a factory restore will not erase note and track presets. To do a full restore - including note and track names - hold the stop key on boot up.

Please note it is advised to do a factory reset when updating software or if your Maxx is exhibiting odd behavior.



## Store / Recall using Mirror Card

Maxx has the option to save its user settings to (and restore settings from) the mirror compact flash partition. This allows settings to be exchanged between multiple Maxx's.



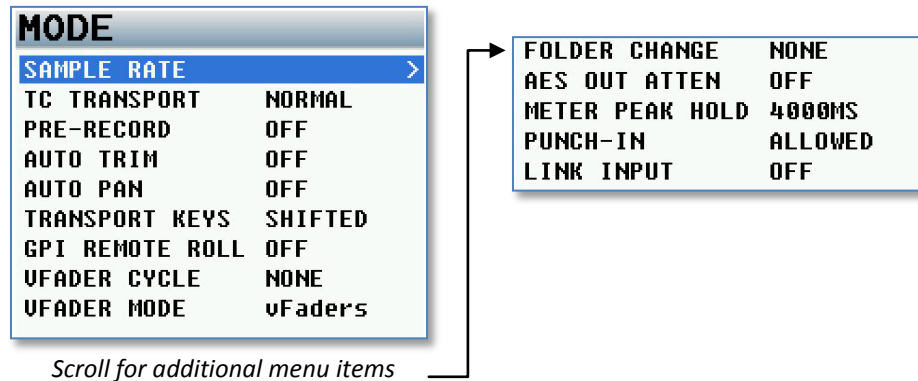
## About Maxx Page

This page gives you information about your Maxx

ABOUT MAXX	
MODEL	Maxx 6
SERIAL NUMBER	01234
SOFTWARE VER	v1.01
DSP REV	B
MAIN REV	56
BOOT LOADER	

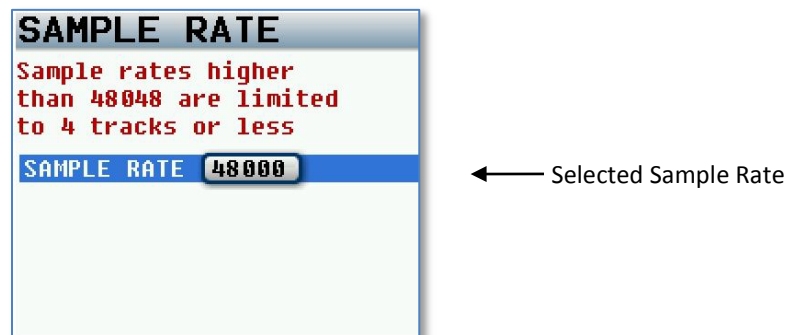
## Mode Menu

This is where Maxx's engineering parameters are set up.



## Sample Rate

This is where the sample rate is selected. Maxx can record with sample-rates of: 44100, 47952, 48000, 48048, 88200, 96000, 192000



Please note that when recording files at a high sample rate of 88200, 96000 or 192000 there are some limitations to Maxx's recording parameters.

- Maxx will record up to 4 analog iso inputs pre-fader only.
- Fader assign will be disabled – all inputs will be routed pre-fader
- Record track assignments will be Input 1 to track 1, input 2 to track 2, input 3 to track 3 and input 4 to track 4.
- Input and card compressors will be disabled.
- NeverClip will be disabled.
- While Maxx will record time coded files the BNC time code connector is disabled - meaning Maxx's time code generator will function but you will not be able to receive external time code or send time code via the BNC connector.
- Prerecord is limited to 2 seconds for all sample rates with the exception of recording more than two tracks at 192K pre-record will be limited to 1 second.

## TC Transport

Time code transport adjusts the way Maxx will go into record mode.

- Normal - Maxx will go into record when the record button is pushed.
- Auto-Load - Maxx will go into to record with it senses record run time code coming from an external source.



## Pre-Record Set

Pre-record allows Maxx to buffer the audio into a pre-record buffer. From the point the Maxx is powered up, any audio coming from the input is always being processed. You can choose to buffer up to 5 seconds of audio. When pre-record is enabled, the processed audio signal is held in the buffer until you press the REC key. At that time, all stored audio in the buffer is included the current take with the correct time code. Using prerecord does not use up any additional battery power.

The prerecord buffer is dumped after any of the following settings are changed: sample-rate, time code, user-bits, frame-rate or track count. After these parameters are changed the buffer will start to re-build. Prerecord is limited on sample rates of 88200, 96000 to 2 seconds. When recording more than two tracks at 192K - then prerecord will be limited to 1 second.

## AutoTrim

AutoTrim is a feature that makes the menu knob act as an individual trim knob for all your analog inputs. When AutoTrim is turned on and you adjust a fader the blue LED next to that fader will illuminate indicating the input routed to that fader will be trimmed when you rotate the menu knob. When you adjust another fader, the trim function will move to that input.

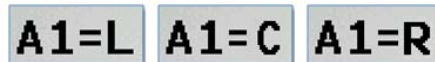


## AutoPan

AutoPan is a feature that causes the Power key to act as a pan knob. When AutoPan is turned on and you adjust a fader the blue LED next to that fader will illuminate indicating the input routed to that fader will be panned when the Power key is pressed. AutoPan is active from any meter screen.

When pressing the Power key the panning for the illuminated channel will cycle from left to center to right to blank - unless "Prevent Empty Pan" is turned ON then the blank option will not be cycled through.

As you pan with AutoPan the headphone display will temporarily show which input is panned to which position.



Analog input 1 panned Left, Center, Right

## Transport Keys

There are two ways that the record, stop, and play keys can be set to control the way Maxx will go into record, stop and playback.

### Shifted Mode

If the transport key is set to shifted mode and you press the TC, Bus or Setup key, the menu associated with those keys will open. When set to shifted mode to go into record, playback or stop, you would need shift those keys. To shift press the MENU knob while simultaneously pressing the REC, PLAY or STOP key. While in shifted mode it is still possible to directly go into record, play and stop with a single key press by pressing and holding the transport key for 1.5 seconds.

### Unshifted Mode

If the transport key is set to unshifted mode and you press the REC, PLAY or STOP keys Maxx will go into record, playback or stop. In unshifted mode to display the TC, Bus or Setup menus, it is necessary to press the MENU knob while pressing the TC, Bus or Setup key.

## VFader Cycle

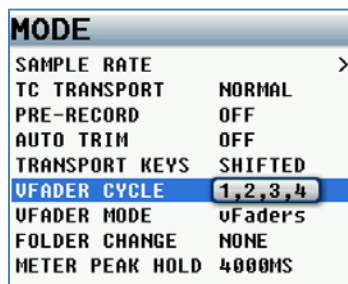
Virtual fader will allow you to mix Analog inputs 5, 6 and the AES inputs right from the ENG Home screen. If you activate "VFADER CYCLE", you can adjust the mix for the AES inputs and return inputs right from the ENG Home screen.

When using the virtual faders the MENU knob will become the hardware fader for those inputs.

VFADER CYCLE lets you choose which inputs (if any) you want to be able to mix in the ENG Home screen:

Inputs 5 and 6 are the analog return inputs.

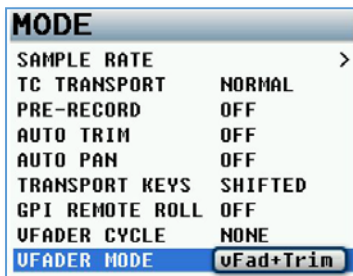
Please note if you need to access the main menu from the ENG meter screen while the VFader mode is active, you will need to press and hold the MENU knob for 1.5 seconds



Shows which inputs will be available  
when the Virtual Fader is activated

## VFader Mode

VFader mode lets you choose to control the fader only or alternate between fader and trim controls for the inputs that you chose to be active in the VFADER CYCLE.



When the virtual faders are active the bottom meter on the ENG Meter Screen will display what you will be controlling. Either fader only or fader and trim for an input channel can be selected.



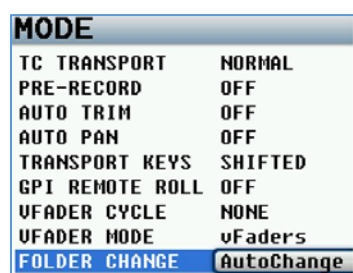
Virtual fader mode is only active while in the ENG meter screen or the virtual fader .meter screen

To control the selected inputs:

- Press the MENU knob and the bottom meter on the ENG meter screen will display what input you will be controlling with the MENU knob.
- If the fader icon is displayed the MENU knob will adjust the mix for that input.
- If the blue trim icon is displayed the MENU knob will control the input trim of that input.

## Folder Change

The folder change option allows Maxx to automatically change the mirror folder to follow the selected primary folder. If AutoChange is on and you change the primary folder the mirror folder will change to the same folder. Please note mirror mode still needs to be turned off before changing the primary folder.



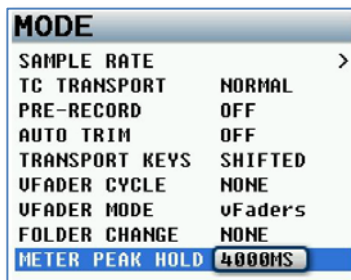
## AES Output Attenuation

AES output attenuate will reduce the AES output level by the amount selected in the menu. The AES attenuation will allow you to take full advantage of the dynamic range of the Never Clip inputs. The output attenuation works the same way as the ISO attenuation on Maxx's record tracks works.

The adjustable range is from 1dB to 20dB in 1dB increments.

## Meter Peak Hold

Meter peak hold sets the duration the peak indicator (white vertical bar within the meter) is held after the audio hits that peak. The range is 400MS – 8000MS with a step value of 200MS.

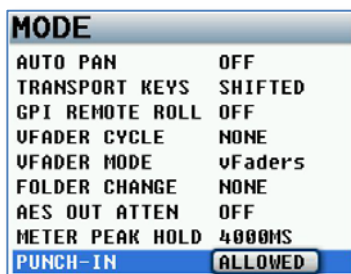


← Time that the peak hold indicator will remain on the meter.

## Punch-In

Punch in gives you the ability to start a new segment while recording. If punch-in is ALLOWED, you can create a new file while recording by pressing (or press holding) the REC key (depending if you are in shifted or un-shifted mode). If it is DISABLED, you cannot manually create a new file while recording. If you turn on the Rec/Stop warning option in the ENG Home screen, there will be an audible beep when a new file is created. The beep is heard in the main headphones only and is not sent to the record tracks or output busses.

Please note that Maxx will automatically create a new file when the file size reaches 2GB. This will be a seamless transmission with no loss of audio. The take number will add a letter for each time Maxx creates a new file. So for example if the first take is over 2GB the take numbers would be Take1 and Take 1a.



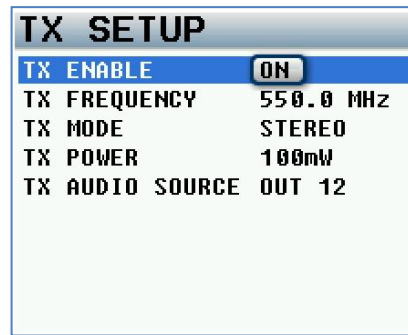
## Link Input

When set to ON the link input allows Maxx to receive the AES mix bus output from another Maxx / Nomad, or any other AES source. The received AES audio channels are mixed individually to the output bus of Maxx. This links the two recorders together allows more inputs to be mixed to the output busses.



## Transmitter Setup

*Only available when the transmitter option is installed*



### Transmitter Enable

Turns ON / OFF the UHF camera link transmitter.

### Transmitter Frequency

Sets the transmit frequency of the UHF camera link transmitter is set.

### Transmitter Mode

Sets the transmit mode of the UHF camera link transmitter.

- MONO - Maxx will transmit one output bus.
- STEREO -Maxx will transmit both output busses.

### Transmitter Power

Sets the transmitter power level. You can select 25, 50 or 100mW

### Transmitter Source

Sets the source of audio that will feed the UHF camera link transmitter.

- OUT 12 - Maxx will transmit what is being sent to the output buses 1 and 2.
- TAPE / MONO-Maxx will transmit what is being sent to tape and mono output buses.

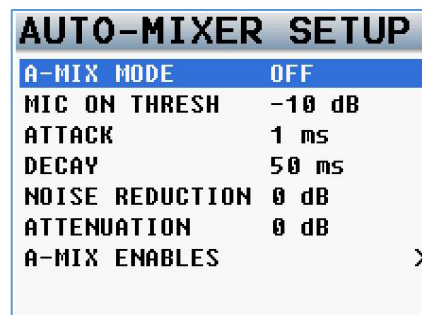
## Auto-Mixer

When Auto-Mixer is on, and a speaker starts to talk, Maxx will automatically open that microphone and add that microphone to the mix. Then when a speaker stops talking that microphone will be attenuated “closed” and it will essentially be removed from the mix.

Removing unused microphones will result in a lower noise floor giving you a cleaner, better sounding mix without having to manually ride the faders. Manually riding faders in unscripted dialog often results in missing the start of when a person begins to speak.

Maxx’s Auto-Mixer has no limit on the number of microphones that can be active at one time. The Auto-Mixer also has a last microphone on feature; this means that even if no one is speaking there will always be one microphone included in the mix, which will be the last active microphone. The last mic on feature allows the mix to never go to absolute silence.

Please note Auto-Mix will be routed to the output bus selected in the A-Mix Enables menu. When using Auto-Mixer it is important that you remove all cross points in the Bus Assign Matrix for the chosen bus or busses. If any cross points are active they will be mixed into the Auto-Mixer audio.



## A-Mix Mode

Enables Maxx Auto-Mixer and sets if the Auto-Mixer will work either pre-fade or post-fade.

- Pre-Fade - The Auto-Mixer is inserted before the faders in the audio chain so only the trim control will affect the microphone levels. Since the Auto-Mixer is before the faders the faders have no effect on the Auto-Mix levels.
- Post-Fade - The Auto-Mixer is inserted after the faders in the audio chain and both the trim and the faders will control the levels of the microphones. In post-fade mode you can pull a microphone out of the mix by simply lowering the fader. This way if you are recording a pre-fade iso tracks it will remain un-affected.

## Mic On Threshold

The mic on threshold sets the level that a microphone needs to be reached before that microphone opens. When a speaker’s microphone reaches the mic on threshold level, as indicated on the input meter, that microphone will open and become part of the mix.

- Mic On Threshold can be set anywhere between -60dB and -10dB

## Attack

The attack sets how fast the microphone ramps up to full level when a speaker starts to talk. Please note that the microphone will engage immediately regardless of the attack setting.

- Attack can be set anywhere between 1 and 150ms

## Decay

The decay sets how long a microphone will stay active after the signal has fallen 10dB below the mic on threshold. This setting is to prevent a microphone from closing too soon if a speaker takes a brief pause.

- Decay can be set anywhere between 1 and 150ms

## Noise Reduction

Noise reduction sets how much the noise floor is attenuated when no one is talking.

- Noise Reduction can be set anywhere between 0dB and -10dB

## Attenuation

The attenuation sets how much each microphone is attenuated when a person stops talking.

When a person stops talking that microphone is not completely closed but that microphone is actually attenuated. That level of attenuation is adjustable through this menu setting. In some environments it may be more palatable to hear some or most of the ambient microphone noise all the time rather than hear the noise mute and then re-appear when someone talks. Regardless of this setting the last active microphone will always remain open.

If you want the microphone to completely close you can the attenuation at its lowest setting.

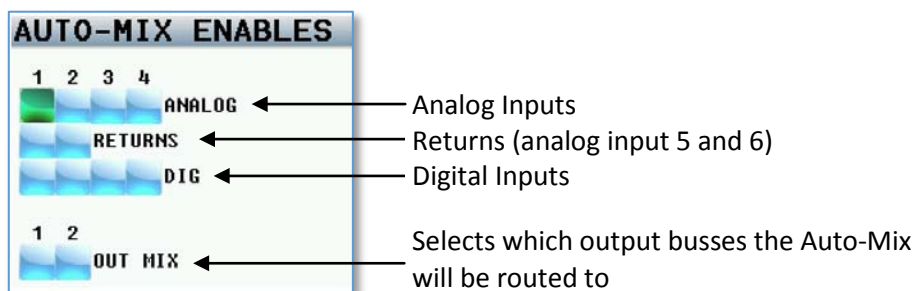
- Attenuation can be set between -10dB and -80dB

## Auto-Mix Enables

The Auto-Mix enable matrix sets which of the analog and or digital inputs are included in the Auto-Mix.

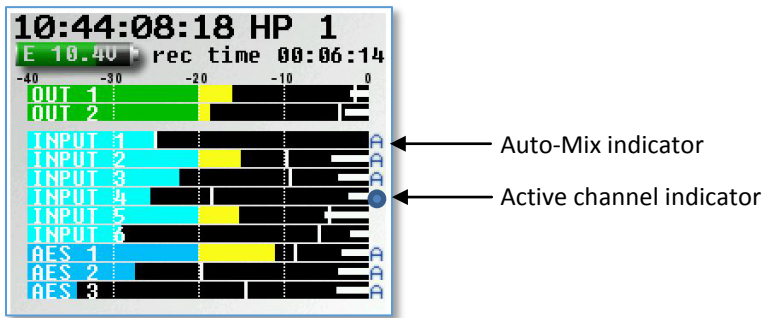
When an input is selected to be included in the Auto-Mix an "A" will be displayed to the right of the input meter on the meter screen.

The Auto-Mix matrix also lets you select which output buses the Auto-Mix will be sent to.



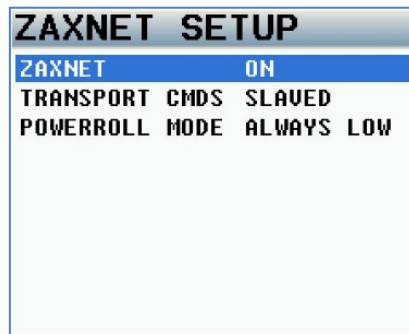
When assigning Auto-Mix to an output mix bus that bus should not have any thing assigned to it. If something is assigned to an output bus with the Auto-Mixer the assigned audio will be mixed into the Auto-Mix essentially defeating the Auto-Mixer. To verify that nothing is assigned go to the output bus assign matrix and make sure that nothing is assigned to that bus.

## Auto-Mixer Functionality



- After your inputs are assigned to the Auto-Mixer the letter “A” will appear to the right of the meter for that input.
- When that input is active the “A” will be replaced by a blue dot indicating that the input is being included in the mix. If multiple microphones are opened at the same time Maxx will display a blue dot for each active input.
- You will want to make sure all bus routing is cleared for bus that the Auto-Mixer is routed to. This will prevent unwanted audio from mixing into the bus.
- The Auto Mixer will not be able to differentiate between a speaker’s voice and noise such as a hit to the microphone. So if the noise is louder than the mic on threshold that will open the microphone as well.

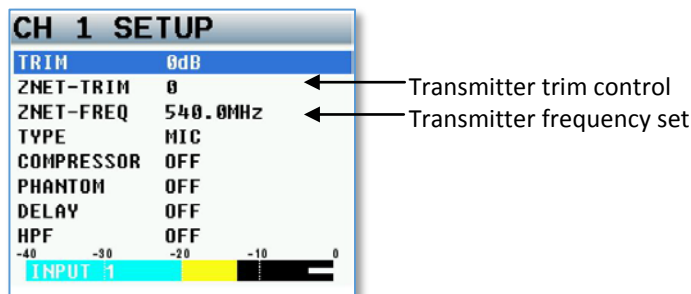
## ZaxNet Setup



ZaxNet functionally in Maxx will allow you to remotely control Zaxcom TRX transmitters. You can change the frequency, change the input gain, apply power roll and start and stop the transmitter's recorder remotely. When you adjust the transmitters' parameters with-in Maxx the change commands will then be embedded in the time code stream out of Maxx. Then all you have to do is input Maxx's time code into a ZaxNet transmitting device such as the IFB100, IFB200, TRX900 Camera Link transmitter, QRX100 (with QIFB), or QRX235 (with QIFB). Then those devices will send the commands to the transmitters.

### ZaxNet Enable

Turns ON / OFF ZaxNet in Maxx. When ZaxNet is enabled the TRX gain and frequency adjustment menu items will appear in the analog and AES setup pages.



### Transport Commands

Transport commands will send record and stop commands to the TRX transmitters. If the transport commands are set to slaved the transmitters, that are set up to receive ZaxNet record commands will begin start recording when you put Maxx into record, and will stop when Maxx stops recording. Please see your TRX transmitter manual to set up the transmitters to receive the record commands.

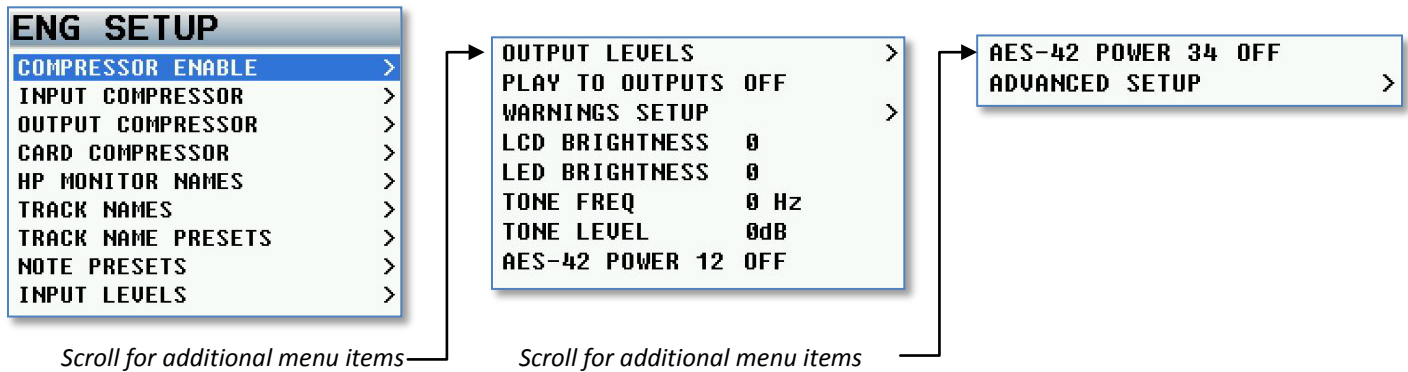
### Power-Roll Mode

Power roll allows the transmitters that are being controlled via ZaxNet to increase its output power level when Maxx goes into record, and decrease to a lower power setting when you stop recording. By decreasing the power level when you are not recording allows you to conserve the battery on the transmitter. To use power-roll the TRX transmitters power-roll setting must be set to "Deva Trigger"

The power-roll settings in Maxx are:

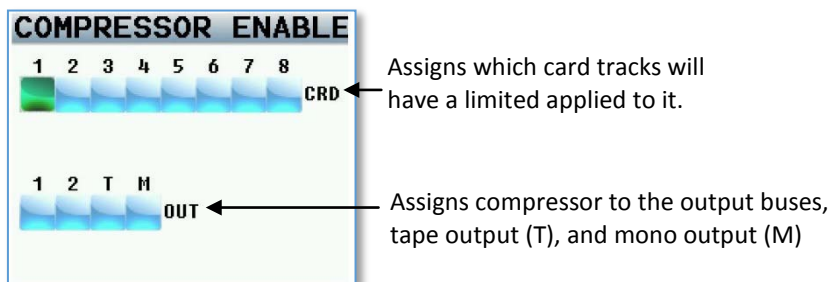
- ALWAYS LOW - The transmitter will always run at the low power setting.
- DYNAMIC - The transmitter will run at low power between takes and automatically go into high power when Maxx goes into record.
- ALWAYS HIGH - The transmitter will always be run at the high power setting.

## ENG Setup



## Compressor Enable

The compressor matrix sets which card tracks, output busses, and if the tape out or mono out will have a compressor (limiter) enabled. Placing an X in the matrix will enable the compressor to that card track, output bus and or tape and mono out.



## Input Compressor Parameter Adjust

This menu sets the parameters for the input compressor. The Input Compressor settings are global, meaning that the settings adjusted here will be the same for all input Channels.

INPUT COMPRESSOR	
ATTACK	5mS
DECAY	100mS
THRESH	-6dB
RATIO	4.0:1

## Output Compressor Parameter Adjust

This menu sets the parameters for the output compressor settings. These settings will be applied to the two output busses as well as the tae and mono output. The output compressor settings are global, meaning that the settings adjusted here will be the same for all output busses. The parameter for the output compressors allows you to add makeup gain.

OUTPUT COMPRESSOR	
ATTACK	5mS
DECAY	100mS
THRESH	-6dB
RATIO	4.0:1
GAIN	0dB

## Card Compressor Parameters

This menu sets the parameters for the card compressor settings. The card compressor settings are global, meaning that the settings adjusted here will be the same for all card tracks. The parameter for the output compressors allows you to add makeup gain.

CARD COMPRESSOR	
ATTACK	5mS
DECAY	100mS
THRESH	-6dB
RATIO	4.0:1
GAIN	0dB

## Headphone Names

Maxx allows you to customize the headphone monitor names that appear in the home screens. When you are in the headphone set up menu once scroll the menu knob and click on a particular HP number, you will be then taken to the keyboard that will allow you to enter text. Once you are finished entering in the headphone name press and hold the menu knob to enter.

If you create a headphone name labeled "PLAY" when you go into playback mode Maxx will automatically jump to this preset, when hit press stop Maxx will automatically return to the last preset you were listening to.

HP SETUP NAMES	
1:	HP 1
2:	HP 2
3:	HP 3
4:	HP 4
5:	HP 5
6:	HP 6
7:	HP 7
8:	HP 8
9:	HP 9

## Track Names

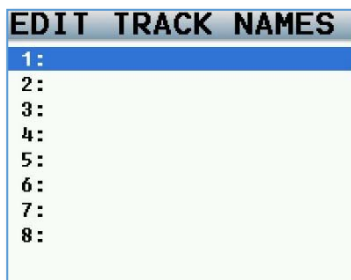
The track name menu allows for the naming of the record tracks. The track names are then displayed within the card meters for easy identification of what is being recorded and are contained in the files metadata so post can also easily identify the source of a recorded track.

When you are in the track naming menu scroll the menu knob and click on a particular track number, you will be then taken to the keyboard that will allow you to enter text. Once you are finished entering in the headphone name press and hold the menu knob to enter.

Maxx also allows you to choose from a preset list of track names that you can create

To select from the list of Track Preset Names:

1. When you are in the track name menu highlight the track you want to name by rotating the menu knob.
2. Press any of the PFL keys.
3. Scroll to the name preset you want enter.
4. Press the menu knob.



## Track Name Preset Edit

The track name preset menu allows you to create a preset list of commonly used track names. There are 20 track name presets available. Each track name can be up to 22 characters long and the existing names can be edited and new track names can be created.

When you are in the track name preset menu you will scroll the menu knob and click on a particular preset number, you will be then taken to the keyboard that will allow you to enter text. Once you are finished entering in the name press and hold the menu knob to enter.





## Note Preset Edit

The note name preset menu allows you to create a preset list of commonly used metadata notes. So when you are entering in the metadata you will be able to quickly choose a note. There are 20 note presets available and each note can be up to 25 characters long. All existing notes can be edited and new names can be created.

When you are in the note preset menu you will scroll the menu knob and click on a particular note number, you will be then taken to the keyboard that will allow you to enter text. Once you are finished entering in the note press and hold the menu knob to enter.

EDIT NOTE PRESET	
1:	AIRPLANE
2:	CIRCLE TAKE
3:	AMBIENCE
4:	TONE -20.000
5:	WILD TRACK
6:	MOS
7:	NO GOOD
8:	EXCELLENT
9:	

## Input Levels

The input levels menu manages the audio input levels for the slate, camera returns and the digital inputs.

INPUT LEVELS	
SLATE LEVEL	0dB
RET1 LEVEL	0dBu
RET2 LEVEL	0dBu
DIGITAL IN1	0dBu
DIGITAL IN2	0dBu
DIGITAL IN3	0dBu
DIGITAL IN4	0dBu
EXTRA INPUT GAIN	0 dB

### Slate Level

Here is where you can adjust the internal slate microphone level. The slate level is adjustable in 1 dB steps from -12dBu to 21dBu.

### Return / Analog Input 5 and 6 Levels

This allows you to adjust the levels of the return / analog 5 and 6 inputs. The level is continuously adjustable in 1 dB steps from -20dBu to 30dBu.

### Digital Inputs 1-4 Levels

This allows you to adjust the levels of the digital inputs. The levels are continuously adjustable in 1 dB steps from -20dBu to 30dBu.

### Extra Input Gain

This allows you to add 10dB of digital gain to your inputs giving you an additional 10dB of input gain for microphones that need it. This is a global setting for your XLR inputs.

## Output Levels Adjust

The output levels adjust manages the output audio levels.

OUTPUT LEVELS		
XLR OUT1		0dBu
XLR OUT2		0dBu
AUX OUT1		0dBu
AUX OUT2		0dBu
MONO OUT		0dBu
TAPE OUT		0dBu

### XLR & Aux Output Bus Levels

Each of the main output can be independently adjusted to one of the following output levels.

- 0dBu - Line Level
- -10dBu - Tape / Consumer Level
- -35dBu - Mic Level

### Mono & Tape Output Bus Levels

The mono and tape outputs can be independently adjusted. Both the mono and tape outputs are continuously adjustable in 1 dB steps from -12dBu to 21dBu.

## Play to Outputs

Play to outputs sets if the playback audio will be sent to the output busses when Maxx is in play back mode.

- OFF - Playback audio will not be outputted to the output busses when playing back from the compact flash card and live audio will continue to be sent to the outputs.
- ON - Playback audio will be outputted from the output busses when playing back. Live audio will be muted and the playback audio only will be sent to the outputs, when stop is pressed Maxx will resume sending live audio to the output busses.

## Warnings Setup

The warning setup menu manages the audible alerts that are sent to the main headphones. These warnings will also be displayed on the LCD screen. Once one of the warnings is displayed, pressing the headphone knob will acknowledge and dismiss the warning.

WARNINGS SETUP		
INT BATT WARNING		OFF
INT BATT THRESHOLD	5.5V	
EXT BATT WARNING		OFF
EXT BATT THRESHOLD	10.5V	
HP BEEP LOUDNESS	20	
HP BEEP BATTERY		OFF
HP BEEP LOW DISK		OFF
HP BEEP REC/STOP		OFF
NO-MIRROR BLINK		OFF

There is a separate user adjustable voltage cutoff for both internal and external battery - if you are not using the internal battery it is recommended to turn that warning off.

Sets the volume level of the warning beep.

When set to on the No-Mirror Blink sets if the red record LED will blink when you are recording to the primary folder and are not mirroring. If you are mirroring the LED will stay solid red.

## LCD Brightness

This menu is where the brightness of the LCD screen is adjusted. Maxx allows you to adjust the screen brightness to 11.

## LED Brightness

This menu is where the brightness of Maxx's LEDs is adjusted. This is a global setting meaning that all LED lights will be set to the same brightness level.

## Tone Frequency Adjust

This menu adjusts the frequency of the reference tone. The adjustable range is from 20 to 20,000 Hz.

## Tone Level

This menu adjusts the output level of reference tone. The range is -90 to 0dB.

Please note it is recommended for most applications to keep the tone level set at -20dB

## AES 42 Enable

This menu allows you to Enable AES-42 power for each AES pair.

<b>AES-42 POWER 12 OFF</b>
<b>AES-42 POWER 34 OFF</b>

## Advanced Setup

ADVANCED SETUP		
Prevent Empty Pan	OFF	
Display Speed	FAST	
Burn Boot Loader		>
Debug Bits	0	
Upgrade Code		>
Allow Logging	OFF	
Log Screen		>
Slate Always On	NORMAL	

### Prevent Empty Pan

When set to on, the blank (no assign) option is removed from AutoPan leaving only the L, C, R option.

### Display Speed

The display speed sets the refresh rate of the LCD display. This should normally be set to FAST.

When set to fast the display is updated every frame. Though if you are using a lot of effects and cross points and/or are recording at a high sample rate and find that the user interface is getting hard to use, you can change the display speed to SLOW to slow down the refresh rate. Please note the display speed will automatically go into SLOW when mirroring or when the unit needs more horsepower for recording.

### Burn Boot loader

The boot loader is part of the software that helps boot up Maxx. Generally, you will not need to update the boot loader. If the boot loader needs to be updated there will be a note released with the software to do so. The boot loader software is already contained within Maxx's software.

### Debug Bits

The debug bits are a factory diagnostic setting and should stay set to 0.

### Upgrade Code

This page is used to enter in a factory generated code to upgrade Maxx.

To enter the upgrade code you must directly enter in the code by using the alpha / numeric multi-function keys. Warning by randomly entering in code numbers can cause your Maxx to lock up.

### Allow Logging

Allow logging will turn on the logging feature which will allow Maxx to log warning and error messages which then can be used by the factory to diagnose your Maxx. The logged messages are displayed on the log screen. If logging is not turned on then Maxx will not log the errors.

### Log Screen

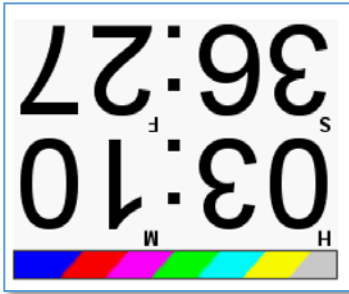
This is where Maxx displays the logged errors and warnings.

### Slate Always On

- Normal - This is the typical setting that would be used. With this setting pressing and holding the slate key will activate the slate mic and releasing the key will deactivate the slate.
- Forced - When you activate the slate mic this setting locks the slate mic in the on position. Note a power cycle will be needed to deactivate the mic.

## Pressing the Time Code Key

### Time Code Slate



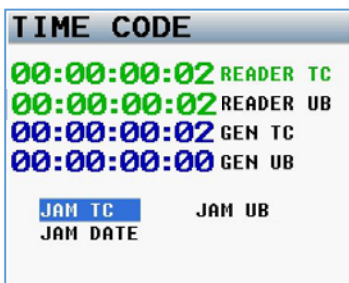
Pressing the TC Key once brings you to an inverted visual time code slate.

When the time code slate is displayed and you press the MENU knob, the time code will briefly freeze and a 1-frame slate tone will be sent to any bus that has tone routed to it.

This is used to provide a visual sync for the camera to match picture and sound.

### Time Code Jam

Pressing the TC Key a second time brings you here.



This page displays Maxx's time code reader, which is receiving time code and user-bits from a source that is connected to the time code in on the BNC connector.

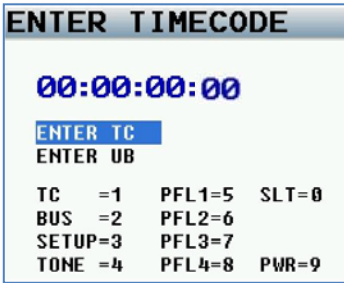
Also displayed is the current running time code of Maxx's internal time code generator, as well as Maxx's user-bits.

From this page you can jam the time code and user-bits from a connected time code source or jam time code and user-bits from Maxx's internal calendar and clock.

- **JAM TC** – Jams Maxx's TC from an external source, such as a camera or a master TC unit.
- **JAM UB** – Jams Maxx's user-bits from an external source, such as a camera or a master TC unit.
- **JAM DATE** – Maxx's user-bits are created from the internal calendar.

**NOTE:** Maxx contains a battery backed real-time clock. This clock is used to maintain running time code and internal calendar. It is advised to change the battery every 2 to 3 years. The battery that maintains the time code and clock is a CR2320 3V coin cell battery.

## Enter Time Code



### Manually Entering Time Code

1. Press the MENU knob to highlight the TC.
2. Rotate the MENU knob to select the desired entry position.
3. Press the keys to enter a numeric value.
4. Once you enter the last digit, the TC is entered immediately and jammed. If you don't enter the all eight digits pressing the MENU knob will jam the time code as well.

### Manually Entering User-Bit

1. Press the MENU knob to highlight the UB
2. Rotate the MENU knob to select the desired entry position
3. Each character position can take a hex number (0 - 9, A - F).
4. To enter A - F, double click the keys  
TC=A, BUS=B, SETUP=C, TONE=D, PFL 1=E, PFL 2=F
5. Once you enter the last digit, the User-Bits are entered immediately.

## Time Code Setup

TIME CODE SETUP	
TC MODE	FREE-RUN
TC FRAME RATE	23.98
TC DISPLAYED	GENERATOR
TC OUTPUT	GENERATOR
INCREMENT UBITS	OFF
UB DATE STYLE	EU DDMMYY
SET DATE	>
TC BNC MODE	INPUT

### TC Mode

- **FREE-RUN** – Time code runs continuously.
- **REC-RUN** – Time code will start to run when Maxx begin to record.
- **CJAM** – Time code and user-bits are continuously updated from a connected external source.
- **CJAM TC** – Time code only is continuously updated from a connected source.
- **CJAM UB** – User-bits only is continuously updated from a connected source.

### TC Frame Rate

TC frame rate sets Maxx's time code frame-rate.

Maxx supports all standard SMPTE frame-rates:

**23.98, 24, 25, 29.97, 29.97DF, 30, 30DF**

### TC Displayed

TC display sets what time code Maxx displays.

- **GENERATOR** – The time code that is displayed is from Maxx's internal time code generator.
- **CARD** – Time code is displayed from the file being recorded or played back.
  - While in Playback - Time code displayed is the current point in the take.
  - While in Record - Time code displayed is the time code being recorded during the take, as it happens.

### TC Output

TC output sets what time code is sent from the time code output connector

- **GENERATOR** – The time code that is displayed is from Maxx's internal time code generator.
- **CARD** – Time code is displayed from the file being recorded or played back.
  - While in Playback - Time code displayed is the current point in the take.
  - While in Record - Time code displayed is the time code being recorded during the take, as it happens. If you need to send running time code to another device, set it to card. If you want to control another time code device with an Auto-Load capability, set it to card.

### Increment UBits

If incremental user bits set to ON the user-bits will increment with each take.

### UB Date Style

UB date style sets how the date is displayed within the user-bits if you chose to assign the date as the user-bits. You can choose European or US styles



## Set Date

This is where Maxx's internal calendar is set.

SET TIME DATE	
Year	2014
Month	9
Day	18

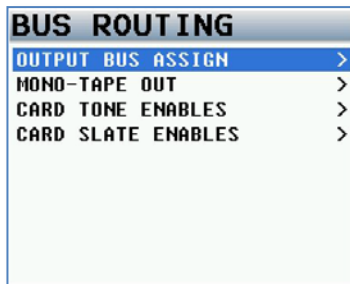
## Time Code Routing

This menu sets the function of the BNC time code connector.

- **OUTPUT** - Maxx will output time code on the BNC connector.
- **INPUT** - Maxx will receive time code on the BNC connector.

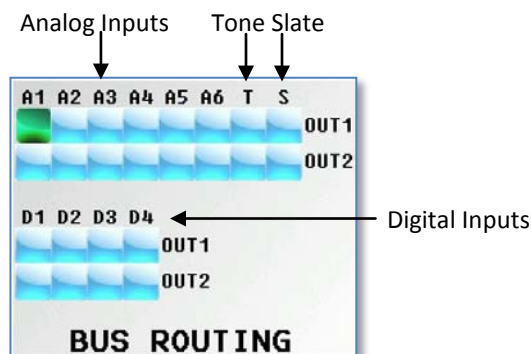


## Pressing the Bus Key



## Output Bus Assign Busses

The output bus assign matrix lets you assign your analog inputs, digital inputs, tone and slate to your output busses. The output busses can be assigned either pre or post fader audio.



The top line of the matrix indicates the following sources:

- **A** - Analog Inputs 1-6
- **T** - Tone
- **S** - Slate
- **D** - Digital Inputs 1-4

## Setting a Cross-Point

Rotate the MENU knob to scroll through the matrix. Stop in the matrix, at the intersection of the input channel and output bus, where you want to send that specific input. Press the MENU knob to cycle through the available cross points, which are:

- **X** – The input will be sent to the output bus post-fader.
- **P** – The input will be sent to the output bus pre-fader.
- **X̄** – The input will be sent to the output bus post-fader with phase inverted.
- **P̄** – The input will be sent to the output bus pre-fader with phase inverted.



To add the optional phase invert, while you are in this matrix press the STAR key. Then by pressing the MENU knob, you will now be able to cycle through the selections with phase invert

## Tape/Mono Out Matrix

The tape / mono matrix sets what audio is routed to the tape and mono out connector.

Any of the inputs, including digital inputs, or output busses can be routed indecently to the tape and or the mono out.



## Card Track Tone Enable

The card tone matrix assigns which card track will have tone assigned.



## Card Track Slate Enables

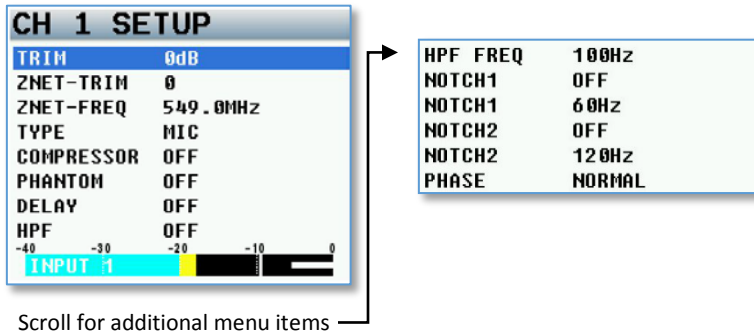
The card slate matrix assigns which card tracks will have the slate microphone assigned.



## Pressing the **Setup** key

### Analog Setup Menu

Pressing the setup key will take you to the analog setup menu where you can adjust the parameters of the analog inputs. After pressing the setup key pressing one of the multi-function keys will jump to the setup menu of the corresponding input.



### Adjustable Parameters

- **Input Trim** – Adjusts the input trim.
- **ZNET-Trim** – When ZaxNet is turned on this is where you can remotely adjust the input trim on the TRX transmitter. The input channel number represents the ZaxNet unit code. So for example channel 1 will control a TRX transmitter that is set to unit code 1.
- **ZNET-Freq** – When ZaxNet is turned on this is where you can remotely adjust the frequency on the TRX transmitter. The input channel number represents the ZaxNet unit code.
- **Input Type** – Selectable between mic level and line level.
- **Input Compressor** – Turns on the input compressor and set compressor groups. For more information on setting a compressor group see input compressor linking below.
- **48 Volt Phantom Power** – Turns on or off 48 volt phantom power.
- **Input Delay** – Adjust the input audio delay. The delay is variable from .0MS to 100MS in .1MS increments.
- **High Pass Filter** – Turning on the HPF turns on a fixed frequency hardware filter. After the hardware filter is engaged the software filter can be adjusted between 40Hz and 230Hz.
- **Two Variable Notch Filters** – The notch filters are independent adjustable between 20 and 18000Hz.
- **Phase Invert** – Reverses the phase of the input.

### Input Compressor Linking

When using a stereo or surround microphone the input compressors (limiters) should be linked to insure that the spatial integrity of the signal is maintained. Maxx allows you to create three separate compressor groups. For example, a stereo microphone on inputs 1 and 2 may have their limiters set to Group A. So if the signal on input 1 needs compressing, the compressor on both 1 and 2 will activate together rather than just channel 1.

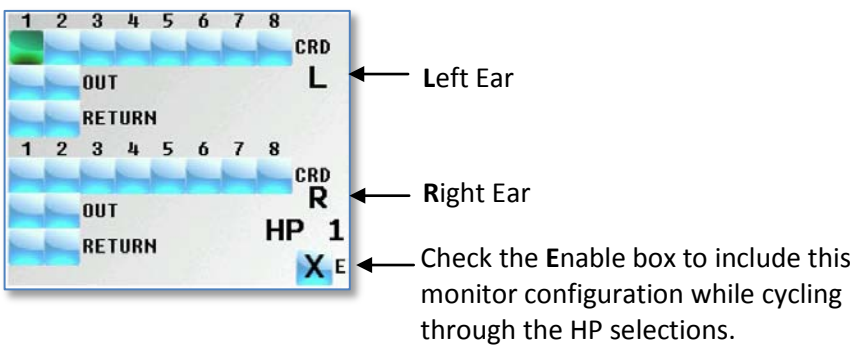
### Digital Input Setup

After pressing the setup key pressing the PFL key will open the digital setup menu for each of the 4 digital inputs. Pressing PFL 1 for fader 1 will take you to the input setup menu for AES 1, pressing PFL for fader 2 will take you to the setup menu for AES 2, fader 3 for AES2 and 4 for AES 4.

The AES setup menu has the same parameters that are in the analog setup menu with the exception of the input type, phantom power option and the delay settings.

The unit codes for the ZaxNet trim and frequency adjustments will be unit code 5 for fader 1, unit code 6 for fader 2, unit code 7 for fader 3 and unit code 8 for fader4.

## Headphone Setup



### Setting up your Headphone Matrix

There are 10 individual Headphone matrices available to store a monitor configuration consisting of any combination of the following:

- Card tracks (CRD)
- Output Buses (OUT)
- Camera Returns / Analog 5 and 6 (RETURN)

To set up your headphone selects:

1. To access the headphone setup matrix - simultaneously press MENU knob and HEADPHONE knob.
2. While in the matrix, scroll the MENU knob to highlight the cross-point you want to listen to.  
(L selections are sent to the left ear and R selections are sent to the right ear)
3. Press the MENU knob to put an X in the matrix. Multiple items can be selected
4. Select the E to enable that setup to be active when toggling through while listening.
5. Press the HEADPHONE knob to advance to the next matrix.
6. To exit, press and hold the HEADPHONE knob.
7. You can add a custom name to each setup. To do so go to the ENG setup menu and select MONITOR NAMES.

### Headphone matrix setup to decode MS stereo

The following is the proper setting for M-S headphone decoding. This example uses card track 1 as the Mid and card track 2 as the Side:



Please note to add the optional phase invert - press the STAR key when in the headphone setup matrix. Then by pressing the MENU knob, you will be able to select phase invert. Phase invert will be shown with an X and a line above it.

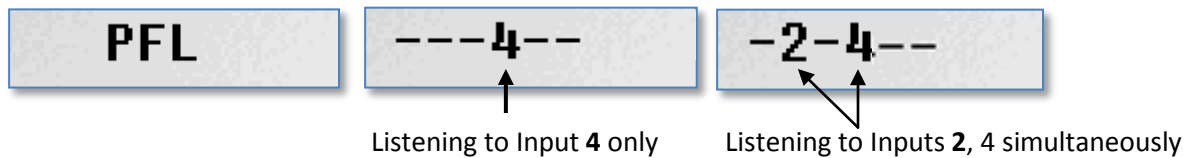
## Pre Fader Listen

### Listening to Inputs

Pressing the PFL keys puts Maxx into Pre Fader Listen mode. The PFL will follow the fader assignment. Once one of the PFL keys is pressed, the name in the headphone monitor field is replaced with PFL alternating with the selected channel number(s) that you are monitoring.

To change the feed press the channel number PFL keys you want to listen to. If you press and hold a second key that channel is added to the PFL.

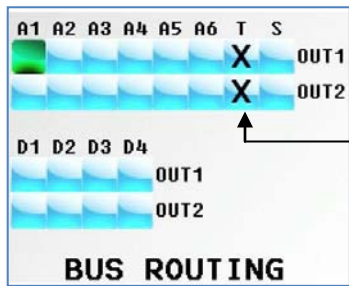
To go back to normal listening press the HEADPHONE knob.



## Setting Up and Engaging Tone

### Assigning Tone to Output Busses

To assign tone to an output bus, press the BUS key and go to the OUTPUT BUS ASSGN matrix to select which output bus will receive tone.

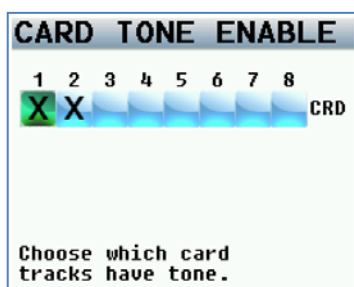


Shows that Output Busses 1, 2 will output Tone when Tone is engaged.

Note only the busses with tone routed to it will output the slate tone when the visual time code slate tone is activated

### Assigning Tone to Card Tracks

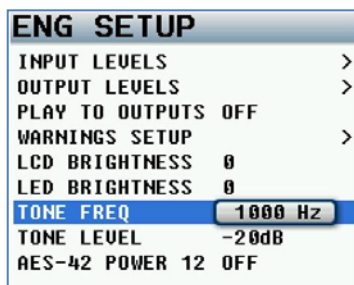
To assign tone to card tracks, press the BUS key and go to the TONE ENABLE matrix to select which card tracks will receive tone.



Shows that Card Tracks 1 and 2 will record Tone when Tone is engaged.

### Adjusting Tone

Tone level and frequency can be adjusted in the ENG SETUP menu.



← Adjusts Tone Frequency

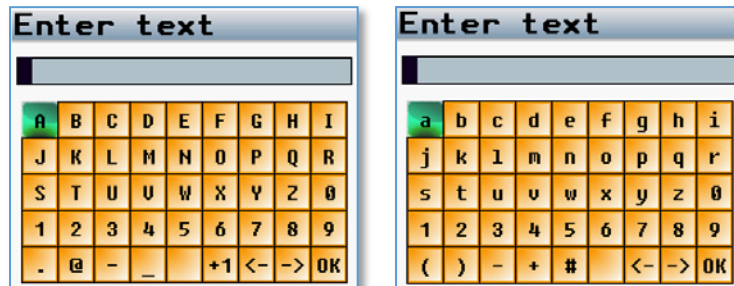
← Adjusts Tone Level

### Engaging Tone

To toggle tone generation on / off, press and hold the TONE key on the face of Maxx.

## Entering Text

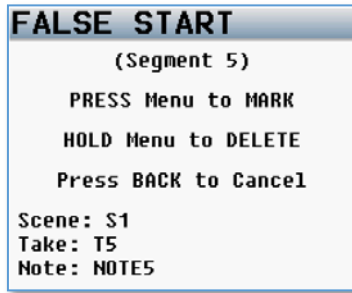
This menu allows alphanumeric data entry for all parameters that require data input. This screen will automatically open when you select an item that requires text.



- To enter a character, turn the MENU knob until the character is highlighted and then press the MENU knob to select the character.
- Rotating the MENU Knob will cause the highlighted box to move right and left (this will also wrap around to the next line).
- Pressing and rotating the MENU knob will cause the highlighted box to move up and down.
- Press and hold the MENU knob for 1 second to toggle between upper and lower case letters.
- If you are inputting scene or take metadata you can select +1 to increment the value by 1.
- To enter the text press and hold the headphone knob for 1 second or click on OK.

## False Start

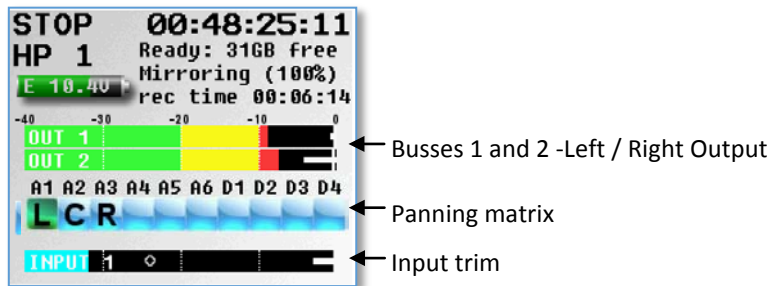
Pressing and holding the STOP key for 1 second after you press stop will open the false start page. From this page you can mark a take as a false start or just delete the file.





## ENG Bag Operation

ENG mode was created to aid in mixing and recording when you are involved in a “run and gun” situation. In ENG mode you can pan and mix all 10 inputs right from the ENG Home screen.



In the ENG Home page you will see:

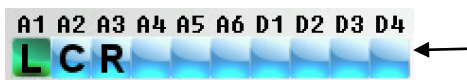
- Output busses 1 and 2 (Left / Right).
- 10-channel routing matrix where you can “pan” your inputs. You can pan to L (left), R (right) or C (center).
- Input meter that follows AutoTrim.

## ENG Panning

The pan routing matrix is essentially a shortcut to the output bus assign matrix. From this matrix you can route post-fade analog inputs to a pair of outputs busses. When you make a change in the ENG pan routing matrix, it actually adjusts the routing in the output bus assign matrix.

Once Auto-Pan is enabled and you are in the ENG home screen, press the BUS Key to enter and highlight the PAN routing matrix. Then rotate the MENU Knob to select the input you want to pan. Pressing the MENU Knob will cycle the assignment as L, C and R to each input pair that was selected.

If you set prevent empty pan to ON in the advanced ENG menu you remove the blank option, leaving only L, C, R.



## AutoTrim

AutoTrim eliminates the need for a separate hardware trim knob for each analog input. AutoTrim mode can be enabled in Mode page.

When AutoTrim is enabled and a fader is “touched”, two things come into play:

- The blue LED next to the fader illuminates to indicate that channel is active for AutoTrim.
- The MENU knob functions as the input trim for that channel. Turning the MENU Knob adjusts the trim level for that input and indicates it with a trim indicated displayed in the meter.



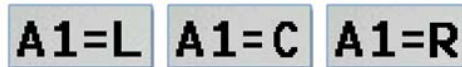
Please note the trim indicator’s position does not relate to a specific value. It is used for relative adjustment only.

## AutoPan

AutoPan is a feature that causes the POWER key act as a pan knob. When AutoPan is turned on in the mode menu and you adjust a fader the blue LED next to that fader will illuminate indicating the input routed to that fader will be panned when the POWER key is pressed. AutoPan is active from any meter screen.

When pressing the POWER key the panning for the illuminated channel will cycle from left to center to right to blank - unless "Prevent Empty Pan" is turned on then the blank option will not be cycled through.

As you pan with AutoPan the headphone display will temporally show which input is panned to which position.



Analog input 1 panned Left, Center, Right

## Virtual Fader

Maxx has 4 hardware faders and 10 inputs. To mix all the inputs from the ENG home screen you need to activate the VFader mode in the mode menu. The virtual fader will allow you to mix all input channels right from the ENG meter screen using the MENU knob as the hardware fader for those inputs.

### Operating virtual faders

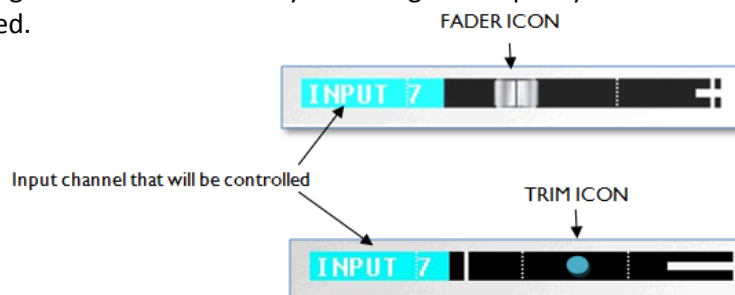
- Go to the mode menu and select "VFader Cycle" and set it for which inputs you want to be able to control.



- In the mode menu select "VFader Mode" to choose if you will be to be adjusting faders only or faders and trim.



- While in the ENG home screen, press the MENU knob then the bottom meter on the screen displays which input you will control with the MENU knob.
- If the fader icon is displayed the MENU Knob will adjust the mix of that input.
- If the blue trim icon is displayed the MENU Knob will control the trim of that input.
- Pressing the MENU Knob will cycle through the inputs you have chosen and the modes that you have selected.



## Compact Flash Cards

Currently there aren't any cards that we are aware of that don't work with Maxx. Though we recommend major brands like SanDisk and Transcend cards. It is not necessary to use cards with "double write speed" features. Any cards, 4 through 128GB, should be fine. Any speed cards will work - a faster card will not make Maxx write any faster - the only advantage of a faster card is faster downloads. Do not use cards from questionable manufacturers or buy from questionable sources. Counterfeit cards do exist and can be unreliable and cause crashing.

If you are planning to record at a high bit rate, choose a card that claims 10 MB per second SUSTAINED write speed (MAX write speed does NOT count).

Once you have the cards in hand, even if it is a brand/size that you have used in the past, test the cards ability to keep up with the recording process before you take it out in the field. If the unit kicks out of record or causes a crash it is most likely a result of bad media.

## Syncing Maxx to a Denecke Slate

The LTC stream out of the Maxx has a “jitter” in the time code signal at 29.97 fps and 23.976 fps. This can result in the Denecke TS-C or the TS-3 slates identifying the wrong code, if you set the slate to “Auto Set” (position 5). In addition, if you use “Auto Set” you will experience a time code drift.

You don’t need to replace your slates. The Denecke slate and Maxx can sync perfectly.

When setting the slate to receive time code at 29.97 or 23.976, do not use the auto set mode. Just simply set the rotary dial to the corresponding time code frame rate. When you sync the slate you will see “Sync Err” message in the slate. Simply ignore it. The slate will accept the sync and the slate and Maxx will stay in perfect sync with each other.

## Maxx Connector Assignments

### XLR – 3 Audio Input / Output Connectors

- Pin 1 – Ground
- Pin 2 – Signal (+)
- Pin 3 – Signal (-)

### TA-5 Audio Input / Output Connectors

- Pin 1 - Ground
- Pin 2 - Channel A (Left) ( + )
- Pin 3 - Channel A (Left) ( - )
- Pin 4 - Channel B (Right) ( + )
- Pin 5 - Channel B (Right) ( - )

### Mono & Tape Output Connectors (TA-5)

- Pin 1 - Ground
- Pin 2 - Mono Out ( + )
- Pin 3 - Mono Out ( - )
- Pin 4 -Tape Out ( + )
- Pin 5 --Tape Out ( - )

### Headphone Output Connectors (1/4" TRS)

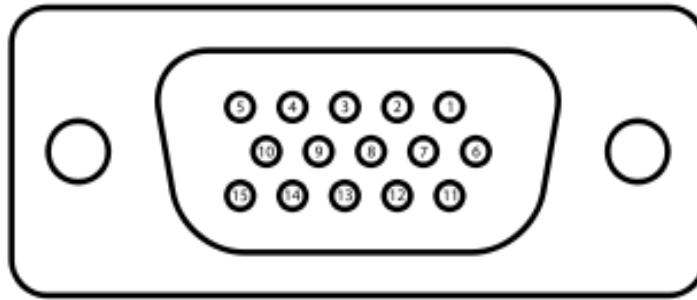
- Tip – Signal Left
- Ring – Signal Right
- Sleeve – Signal ground

### Power Connector (Hirose-4 Connector)

- Pin 1 – Ground ( - )
- Pin 2 – Not Connected
- Pin 3 – Not Connected
- Pin 4 – DC ( + )

## AES Digital Input / Output Connectors (DB-15)

Maxx uses a mini DB-15 (AKA: DE-15) connector for the AES Digital input and output connectors.



Top row pins: 5, 4, 3, 2, 1  
 Middle row pins: 10, 9, 8, 7, 6  
 Bottom row pins: 15, 14, 13, 12, 11

DB -15 Pin Number	IN / OUT	AES PAIRS	Connects to XLR Pin
1	IN	3 / 4	2 (+)
2	IN	1 / 2	2 (+)
3	MIX BUS OUT	L / R	2 (+)
4	GP OUT	-----	-----
5	LINK IN	5 / 6	2 (+)
6	OUT	1 / 2	3 (--)
7	OUT	1 / 2	2 (+)
8	GROUND	GROUND	1
9	OUT	3 / 4	3 (--)
10	OUT	3 / 4	2 (+)
11	IN	3 / 4	3 (--)
12	IN	1 / 2	3 (--)
13	MIX BUS OUT	L / R	3 (--)
14	GP IN	-----	-----
15	LINK IN	5 / 6	3 (--)

## Updating Firmware

Each Maxx is shipped with the latest firmware version installed. When newer firmware becomes available, it can be downloaded from the Zaxcom website: <http://www.zaxcom.com/software-updates>

Newer version of beta software may be found on the Zaxcom Forums: <http://www.zaxcom.com/forum>

### Upgrading the Firmware

1. Format a compact flash card using a PC or Mac.
2. Using a PC or Mac download the new software named (MaxxProgFile\_vX.XX.bin) and copy it to the card.
3. Insure that a set of fully charged batteries are installed or a stable power supply is connected.
4. With Maxx powered down, insert the CF card containing the .bin file into the CF slot. Make sure only one .bin file is on the card.
5. Press and hold the STAR key while turning on Maxx.
6. Once the "Preparing to burn ROM" line is displayed, you can release the STAR key.
7. After the "SUCCESS" line is displayed, cycle the power.
8. Verify that Maxx is running the version you just installed in the about Maxx menu.
9. After updating the software, it is generally advised to perform a restore to factory defaults.

## Product Support

**Register** your product with Zaxcom: <http://zaxcom.com/support/product-registration/>  
Download the latest **Firmware** from: <http://zaxcom.com/support/updates/>  
Download the latest **User Manuals** from: <http://zaxcom.com/support/updates/>  
**Submit Technical Questions** at: <http://www.zaxcom.com/submit-a-technical-question>  
Submit information for **Repair Services** at: <http://www.zaxcom.com/support/repairs>  
Join the **Zaxcom User Forum** at: <http://www.zaxcom.com/forum/forum.php>  
Join the **Zaxcom Face Book User Group** at: <https://www.facebook.com/groups/682199065139938/>



## Maxx Specifications

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### Analog In

Analog inputs: 4 Mic/line-level with 48V phantom power and 2 Line level / camera returns  
Connector: 4 x XLR-3F (2 with .25" jack)  
Mic level input range: -56 to -26 dBu  
Line level input range: -10 to +8 dB  
Distortion: 0.0015%  
ADC bit-depth: 24 bits  
Dual ADC input dynamic range: 137 dB with NeverClip™  
Clipping level: +28 dBu  
Frequency response: 28\* Hz to 22 kHz (48 kHz sampling-rate)  
THD + noise: 0.0015%  
\*Serial #10107 and above, prior to this 50 Hz – 22 kHz

### Analog Out

Analog outputs: 2 Balanced XLR, 0dBu, -10dBu and -35dBu  
1 Balanced TA5 (2 bus) 0dBu, -10dBu and -35dBu  
Tape/mono output: 2 balanced TA5  
Headphone 1: 1/4 inch stereo bus  
Output level: 0 dBu @ -20 dBFS  
Clipping level: +20 dBu  
DAC Bit-depth: 24 Bits  
DAC Dynamic Range: 115dB  
Impedance: 30 ohm

### Digital In/Out

Channel count: 2 AES or AES42 pairs (4 channels)  
Connector: DB-15 mini (DE-15)  
Source: Mix/Direct  
Sample rate conversion: 32-192 KHz

### Transmitter - optional

Power Output: 10 / 50 / 100 mW – Software Selectable  
RF Modulation: Proprietary Digital Method  
RF Frequency Range: 518.0 to 850.0 MHz (Typical Blocks are 24 MHz wide)  
RF Frequency Step: 100 KHz  
RF Bandwidth: 200 KHz  
Channel Separation: 500 KHz (700 KHz recommended)  
Antenna Connector: 50 Ω SMA Female  
Emission Designator: 180 KV2E  
FCC Part: 75.861

### Recording

Track count: 8  
Bit-depth (primary card): 24 bits  
Bit-depth (mirror card): 16 / 24 bits  
Sample rates (kHz): 44.1, 47.952, 48, 48.048, 96, 192  
Head room: 20 to 44 dB  
Format: MARF II, .BWF  
Max Pre-record duration: 5 seconds

### Data Storage

Internal: Compact Flash  
Mixer Type: 32 bit floating point DSP  
Mixer Cross Point: 8 input x 4 output (Pre-fader / Post-fader / Phase Inversion)  
A-D / D-A resolution: 24 bit  
Head room: Selectable 12 to 20 dB

### Effects

Delay: 0 to 60 mS in .1mS steps  
Notch filter: 2 band, 20 Hz to 20 kHz frequency range adjustable  
Compressor type: soft knee with side chain  
High Pass Filter: 20 Hz to 230 Hz

### Time code Reader/Generator

Time code type: SMPTE  
Connector: BNC  
Input Voltage: 1-4VPP  
Output Voltage: 2VPP  
Clock Accuracy: 1.54 PPM (1 frame out in 6 hours)  
Time code Frame-rates: 23.98, 24, 25, 29.97NDF, 29.97DF, 30NDF, 30DF

### Power

Internal: 6AA 7-9 VDC, 4 hours of usage (NiMH)  
External: 8 to 18 VDC  
Power Connector: Hirose  
Battery Meter: Yes, on LCD display

### Physical

Size (H x W x D) 2.0" x 7.5" x 5.25"  
Weight: 2.5 pounds

# Zaxcom Warranty Policy and Limitations

Zaxcom Inc. values your business and always attempts to provide you with the very best service.

No limited warranty is provided by Zaxcom unless your Maxx ("Product") was purchased from an authorized distributor or authorized reseller. Distributors may sell Product to resellers who then sell Product to end users. Please see below for warranty information or obtaining service. No warranty service is provided unless the Product is returned to Zaxcom Inc. or a Zaxcom dealer in the region where the Product was first shipped by Zaxcom.

## Warranty Policy

The Product carries a Standard Warranty Period of one (1) year.

**NOTE:** The warranty period commences from the date of delivery from the Zaxcom dealer or reseller to the end user.

There are no warranties which extend beyond the face of the Zaxcom limited warranty. Zaxcom disclaims all other warranties, express or implied, regarding the Product, including any implied warranties of merchantability, fitness for a particular purpose or non-infringement. In the United States, some laws do not allow the exclusion of the implied warranties.

## Troubleshooting & Repair Services

No Product should be returned to Zaxcom without first going through some basic troubleshooting steps with the dealer you purchased your gear from.

To return a product for repair service, go to the Zaxcom Repair Services page <http://www.zaxcom.com/repairs> and fill in your information; there is no need to call the factory for an RMA. Then send your item(s) securely packed (in the original packaging or a suitable substitute) to the address that was returned on the Repair Services page. Insure the package, as we cannot be held responsible for what the shipper does.

Zaxcom will return the warranty repaired item(s) via two-day delivery within the United States at their discretion. If overnight service is required, a FedEx or UPS account number must be provided to Zaxcom to cover the shipping charges.

\*Please note a great resource to troubleshoot your gear is the Zaxcom Forum: <http://www.zaxcom.com/forum>.

## Warranty Limitations

Zaxcom's limited warranty provides that, subject to the following limitations, each Product will be free from defects in material and workmanship and will conform to Zaxcom's specification for the particular Product.

### Limitation of Remedies

Your exclusive remedy for any defective Product is limited to the repair or replacement of the defective Product.

Zaxcom may elect which remedy or combination of remedies to provide in its sole discretion. Zaxcom shall have a reasonable time after determining that a defective Product exists to repair or replace a defective Product. Zaxcom's replacement Product under its limited warranty will be manufactured from new and serviceable used parts. Zaxcom's warranty applies to repaired or replaced Product for the balance of the applicable period of the original warranty or thirty days from the date of shipment of a repaired or replaced Product, whichever is longer.

### Limitation of Damages

Zaxcom's entire liability for any defective Product shall, in no event, exceed the purchase price for the defective Product. This limitation applies even if Zaxcom cannot or does not repair or replace any defective Product and your exclusive remedy fails of its essential purpose.

### No Consequential or Other Damages

Zaxcom has no liability for general, consequential, incidental or special damages. These include loss of recorded data, the cost of recovery of lost data, lost profits and the cost of the installation or removal of any Product, the installation of replacement Product, and any inspection, testing or redesign caused by any defect or by the repair or replacement of Product arising from a defect in any Product.

In the United States, some states do not allow exclusion or limitation of incidental or consequential damages, so the limitations above may not apply to you. This warranty gives you specific legal rights and you may also have other rights, which vary from state to state.

## Your Use of the Product

Zaxcom will have no liability for any Product returned if Zaxcom determines that:

- The Product was stolen.
- The asserted defect:
- Is not present,
- Cannot reasonably be fixed because of damage occurring when the Product is in the possession of someone other than Zaxcom, or
- Is attributable to misuse, improper installation, alteration, including removing or obliterating labels and opening or removing external covers (unless authorized to do so by Zaxcom or an authorized Service Center), accident or mishandling while in the possession of someone other than Zaxcom.
- The Product was not sold to you as new.

## Additional Limitations on Warranty

Zaxcom's warranty does not cover Product, which has been received improperly packaged, altered or physically abused.